

In the Claims

Please cancel 1-41 without prejudice. Please amend the claims by adding the following new claims.

1-41 (Canceled)

42. (New) A method of treating, preventing or ameliorating a papilloma virus infection in a subject, comprising

administering to the subject a composition comprising nucleic acid molecules containing at least one unmethylated CpG dinucleotide, and wherein the composition is administered in an amount sufficient to treat, prevent or ameliorate the papilloma virus infection in the subject.

43. (New) The method of claim 42, wherein the nucleic acid molecules comprise the sequence 5' TCG 3'.

FTFC 44. (New) The method of claim 43, wherein the nucleic acid molecules comprise the sequence 5'-purine, purine, C, G, pyrimidine, pyrimidine, C, G-3' or 5'-purine, purine, C, G, pyrimidine, pyrimidine, C, C-3'.

45. (New) The method of claim 44, wherein the nucleic acid molecules comprise a sequence selected from the group consisting of 5'-AACGTTCC-3' and 5'-GACGTTCC-3'.

46. (New) The method of claim 44, wherein the nucleic acid molecules comprise a sequence selected from the group consisting of 5'-TCCATAACGTTCCTGATGCT-3' (SEQ ID NO:3); 5'-TCCATGACGTTCCTGATGCT-3' (SEQ ID NO:7); 5'-TCCAAGACGTTCCTGATGCT-3' (SEQ ID NO:9); 5'-TCCATGACGTTCCTGACGTT-3' (SEQ ID NO:10);

5'-TCCATGACGTTCCTGATGCT-3' (SEQ ID NO:35) and

5'-TCCATGACGTTCCTGATGCT-3' (SEQ ID NO:54).

47. (New) The method of claim 42, wherein the subject is a mammal.

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incorrect source

48. (New) The method of claim 42, wherein administration is at the site of exposure.
49. (New) The method of any of claims 42-48, further comprising administering a papilloma virus antigen or vaccine.
50. (New) A method of treating, preventing or ameliorating a papilloma virus infection in a subject, comprising
administering to the subject a composition comprising nucleic acid molecules containing at least one unmethylated CpG dinucleotide, wherein an antigen of the virus is not administered in conjunction with administration of the composition, and wherein the composition is administered in an amount sufficient to treat, prevent or ameliorate the papilloma virus infection in the subject.
51. (New) The method of claim 50, wherein the nucleic acid molecules comprise the sequence 5' TCG 3'.
52. (New) The method of claim 51, wherein the nucleic acid molecules comprise the sequence 5'-purine, purine, C, G, pyrimidine, pyrimidine, C, G-3' or 5'-purine, purine, C, G, pyrimidine, pyrimidine, C, C-3'.
53. (New) The method of claim 52, wherein the nucleic acid molecules comprise a sequence selected from the group consisting of 5'-AACGTTCC-3', and 5'-GACGTTCC-3'.
54. (New) The method of claim 52, wherein the nucleic acid molecules comprise a sequence selected from the group consisting of 5'-TCCATAACGTTCTGATGCT-3' (SEQ ID NO:3); 5'-TCCATGACGTTCTGATGCT-3' (SEQ ID NO:7); 5'-TCCAAGACGTTCTGATGCT-3' (SEQ ID NO:9); 5'-TCCATGACGTTCTGACGTT-3' (SEQ ID NO:10); 5'-TCCATGACGTTCTGATGCT-3' (SEQ ID NO:35) and 5'-TCCATGACGTTCTGATGCT-3' (SEQ ID NO:54).
55. (New) The method of claim 50, wherein the subject is a mammal.

56. (New) The method of claim 51, wherein administration is at the site of exposure.
57. (New) A method of treating, preventing or ameliorating a papilloma virus infection in a subject, comprising
administering to the subject a composition comprising nucleic acid molecules containing at least one unmethylated CpG dinucleotide, wherein the composition is free of papilloma virus antigen, and wherein the composition is administered in an amount sufficient to treat, prevent or ameliorate the papilloma virus infection in the subject.
58. (New) The method of claim 57, wherein the nucleic acid molecules comprise the sequence 5' TCG 3'.
59. (New) The method of claim 58, wherein the nucleic acid molecules comprise the sequence 5'-purine, purine, C, G, pyrimidine, pyrimidine, C, G-3' or 5'-purine, purine, C, G, pyrimidine, pyrimidine, C, C-3'.
60. (New) The method of claim 59, wherein the nucleic acid molecules comprise a sequence selected from the group consisting of 5'-AACGTTCC-3', and 5'-GACGTTCC-3'.
61. (New) The method of claim 59, wherein the nucleic acid molecules comprise a sequence selected from the group consisting of 5'-TCCATAACGTTCCCTGATGCT-3' (SEQ ID NO:3); 5'-TCCATGACGTTCCCTGATGCT-3' (SEQ ID NO:7); 5'-TCCAAGACGTTCCCTGATGCT-3' (SEQ ID NO:9); 5'-TCCATGACGTTCCCTGACGTT-3' (SEQ ID NO:10); 5'-TCCATGACGTTCCCTGATGCT-3' (SEQ ID NO:35) and 5'-TCCATGACGTTCCCTGATGCT-3' (SEQ ID NO:54).
62. (New) The method of claim 57, wherein the subject is a mammal.
63. (New) The method of claim 57, wherein administration is at the site of exposure.

64. (New) A method for preventing a symptom of papillomavirus infection in an individual who has been exposed to papillomavirus, comprising administering a composition comprising a polynucleotide comprising an immunostimulatory sequence (ISS) to said individual, wherein the ISS comprises the sequence 5'-C, G, pyrimidine, pyrimidine, C, G-3', wherein a papillomavirus antigen is not administered in conjunction with administration of said composition, and wherein said composition is administered in an amount sufficient to prevent a symptom of papillomavirus infection.

65. (New) The method of claim 64, wherein the ISS comprises the sequence 5'-purine, purine, C, G, pyrimidine, pyrimidine, C, G-3'.

66. (New) The method of claim 64, wherein the individual is a mammal.

67. (New) The method of claim 64, wherein administration is at the site of exposure.

68. (New) A method of reducing severity of a symptom of papillomavirus infection in an individual infected with papillomavirus, comprising administering a composition comprising a polynucleotide comprising an immunostimulatory sequence (ISS) to said individual, wherein the ISS comprises the sequence 5'-C, G, pyrimidine, pyrimidine, C, G-3', wherein a papillomavirus antigen is not administered in conjunction with administration of said composition, and wherein said composition is administered in an amount sufficient to reduce severity of a symptom of papillomavirus infection.

69. (New) The method of claim 68, wherein the ISS comprises the sequence 5'-purine, purine, C, G, pyrimidine, pyrimidine, C, G-3'.

70. (New) The method of claim 68, wherein the individual is a mammal.

71. (New) The method of claim 68, wherein administration is at a site of infection.